

More particularly, claims 22-24, 26-31 and 40 are directed to photographic emulsion papers that are pre-encoded with an auxiliary information signal, where this pre-encoding does not impair use of the paper for exposing and developing to produce an image. Claims 32-39, and 42-43 are directed to methods for effecting such pre-encoding.

Claims 44-46 are directed to articles having an apparently uniformly transparent layer having a patterned variation, where the patterning has an auxiliary information signal encoded therein. Claims 47-50 are directed to methods for producing such articles.

Claims 50-61 are directed to methods of producing card- or paper-like articles having auxiliary information encoded therein by processing a layer with a steganographically encoded pattern. The article is thereafter processed to carry human-perceptible information.

Claims 25 and 62-70 are directed to photo duplication kiosks, and associated methods, that detect a copy control signal (or a steganographically encoded control signal) in a photograph being copied, and interrupt a usual print-making operation in response thereto.

Disclosure of Ujiie

Ujiie is understood to disclose an apparatus for printing photographic images from negative strips, and more particularly for determining the precise position of a desired negative frame on a negative strip even when the frame doesn't align with numbers marked on the edge of the film, or where certain frame numbers are unreadable.

Photographic film is preprinted at the margins with frame numbers. However, depending on how the film is loaded into the camera (i.e. how much film is pulled from the canister to engage the camera sprockets), the exposed frames may or may not correspond with the preprinted frame numbers.

Ujiie addressed this problem with a two-step solution. First, he pre-printed the margin of the film with frame numbers in *both* arabic numerals and in bar code format (see Ujiie Fig. 2). The bar-coding allows the machine to more reliably sense the frame number markings.

Ujiie next then advanced the film through his machine until the bar code reader read a bar code. He then determined the distance between the detected bar code and a reference point

in an image frame adjacent the bar code. With this information, he could locate any frame on the film – even if none of the other frame number markings were readable.

Ujiie does not address the problem of assuring that photographers' works are correctly attributed, or are not improperly copied. Art that does not contemplate a problem, or contemplate a result to be achieved, provides no suggestion for modifications/combinations necessary to its solution/attainment. Absent such a suggestion, an artisan would not know which teachings of Ujiie to adopt, which to disregard, and which to modify/combine, in order to lead to applicant's claimed combinations.

Ackerman

Ackerman is understood to address the recording of digital information on film, paper or the like using spaced-apart arcuate markings, and particularly concerns a method and apparatus for reading such markings from film. Such a film is shown in Fig. 1; the digital markings represent a price list for various items of equipment.

Again, Ackerman does not address the problem of assuring that photographers' works are correctly attributed, or are not improperly copied. Nothing in Ackerman suggests combinations with Ujiie, or modifications thereto, necessary to yield the claimed combinations.

Stefik

Stefik is not prior art as to many of applicant's claims. Claim 22, for example, is fully supported by the disclosure of priority application 08/215,289, filed May 17, 1994 (copy attached). So too claim 23, etc. Claims that are not *explicitly* supported by text of the '289 application are those dealing with copy control signals, and those claiming printing kiosks.

On the merits, Stefik is understood to disclose a rights-management system that addresses different concerns than the claimed combinations, using different methods.

Stefik's associated data (e.g. "usage rights") are *not* hidden. The claimed methods and articles, in contrast employ *steganographic* encoding (i.e. hidden). (Stefik appears to

contemplate steganographic encoding of certain “tracer information” in works that are printed onto paper, so that photocopies thereof may be detected. *See* 48:1-26).

Moreover, Stefik’s usage rights are not encoded *within* the media being protected. Instead, they are separately represented by a usage grammar *associated with* the content.

More particularly, Stefik employs descriptor blocks (d-blocks) to characterize content (*See* Fig. 7). In Fig. 11, for example, d-block 1103 characterizes the third article in a digital magazine. The d-block gives the title of the work (“Article 3”), the starting address of the article, and its length. These addresses refer to the storage location at which the underlying magazine content is stored. The d-block next includes the “Rights Portion” which defines permissible uses of the work. Parent and child pointers follow.

The textual content of the magazine article is *not* included in the d-block with the usage rights information, etc. Instead, it is separately encoded (*see* Fig. 6).

Thus, Stefik *separates* this auxiliary data from the content (10:36-38).

In the claimed combinations, in contrast, the auxiliary data is encoded in the *same* film or paper on which a picture or other human-perceptible information is later provided.

Thus, while Stefik addresses the problem of illicit use of proprietary materials, he does so in a different way than applicants. Moreover, he does not contemplate -- at all -- the problem of assuring that photographers’ works are correctly attributed. And, as noted, Stefik is not uniformly applicable as prior art to applicant’s claims.

Combination of Ujiie, Ackerman & Stefik

There is no teaching that would have led an artisan to adopt certain teachings, ignore other teachings, and modify yet other teachings, from the three references so as to yield subject matter that – when combined – would yield applicant’s claimed combinations.

In claims 22-25, for example, none of the art suggests a photographic emulsion paper suitable for exposing and developing to produce an image thereon, characterized by an auxiliary information signal encoded therein in the form of a patterned physical characteristic coextensive with the paper.

Ujiie, for example, does not have a patterned physical characteristic *coextensive* with the medium as required by these claims.

Ackerman's medium is *not* suitable for exposing and developing to produce an image. Indeed, the patterning taught by Ackerman make it *unsuitable* for such purpose.

Stefik is not prior art against these claims. And any *prior* art comparable to Stefik still would not address the foregoing deficiencies of Ujiie and Ackerman. Nor would it provide the steganographic attribute that the claims share (i.e. encoding in a manner that does not impair suitability for exposing and developing to produce an image).

The combined teachings of the art likewise fail to lead to the combinations defined by applicant's other claims.

Moreover, applicant's claims provide advantages not contemplated by the art. For example, several of the claims define pre-marked emulsion products, and methods for premarking, that allow images exposed on the media and thereafter distributed to surreptitiously convey associated auxiliary information (useful, e.g., to identify the image proprietor). Other claims prevent photo duplication kiosks from being used to make duplicate prints from original photographic prints (e.g. professional wedding photographs) bearing copy-control markings or the like. None of these advantages is contemplated by the art. These are further grounds evidencing patentability of the claimed combinations (MPEP §707.07(f)).

Request For Interview

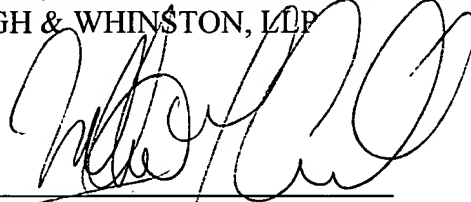
The Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office Action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application will expedite prosecution. Applicant submits the foregoing formal Amendment so that the Examiner may fully evaluate Applicant's position, thereby enabling the interview to be more focused.

This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request. Moreover, the MPEP indicates that the

interview should be granted unless the Examiner has a compelling reason to refuse such an interview.

Respectfully submitted,

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